

REMARKS

Claims 1, 2, 5, 7, 8 and 13-22 are pending. The specification and claims 1, 13, 15, 16, 18 and 19 are amended. Claims 21 and 22 are added.

The specification has been amended to correct clerical errors on page 34 with non-ionic surfactant TN-80 and the non-ionic surfactant PC-6. TN-80 is a primary alcohol ethoxylate surfactant. PC-6 is a special phenol ethoxylate surfactant. As support, attached is a copy of the list of surfactants which was available from the manufacturer of the surfactants, ADEKA Corporation, formerly known as Asahi Denka Co., Ltd., along with a verified English language translation thereof. The Japanese document is a copy of a part of catalog available from ADEKA Corporation.

Claims 1, 13, 15, 16, 18 and 10 were rejected under 35 USC §112, first paragraph. Favorable reconsideration of this rejection is earnestly solicited.

The Examiner asserts that the limitation of 1.5625g to 3.125g with respect to 100g of the resin is not supported in the specification. The Examiner's attention is directed to Table 1 on page 34 of the specification which provides support. More specifically, Table 1 list amounts of resin and surfactant in parts by mass. In thickening material 1 and thickening material 2, 0.25 parts by mass of surfactant is used per 16 parts by mass of resin. This corresponds to 1.5625g with respect to 100g of the resin ($0.25 \text{ divided by } 16 \times 100 = 1.5625$). Similarly, in thickening materials 3 and 4, 0.25 parts by mass of surfactant is used per 8 parts by mass of resin which correlates to 3.125g with respect to 100g of the resin.

Claims 1, 2, 5, 7, 8 and 13-18 were rejected under 35 USC §103(a) as being unpatentable over Kanda et al. in view of Enoki et al. and Nagai et al., and claims 19 and 20 were rejected under 35 USC § 103(a) as being unpatentable over these references further in view of Ishibashi et al. Favorable reconsideration of these rejections is earnestly solicited.

The claims have been amended to be limited to the surfactants used in the examples, that is, the primary alcohol ethoxylate and special phenol ethoxylate. The combination of references fails to teach or suggest the surfactant presently set forth in the claims.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

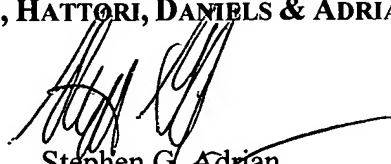
Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

Application No.: 10/670,291
Art Unit: 1795

Amendment
Attorney Docket No.: 031181

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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SGA/arf

Attachments: Japanese Catalog with verified English language translation



DECLARATION

I, Akiko Okura, a staff member of HIROTA, NAGARE & ASSOCIATES, 4th Floor, Shinjuku TR Bldg., 2-13, Yoyogi 2-chome, Shibuya-ku, Tokyo 151-0053, Japan, do hereby declare that I am well acquainted with the English and Japanese languages and I hereby certify that, to the best of my knowledge and belief, the following is a true and correct translation made into the English language of the accompanying copy of the document in respect of a part of a catalog of surfactants available from ADEKA Corporation.

Dated this 17th day of June 2009

Akiko Okura



Alkyl Tail Type Non-Ionic Surfactants

ADEKA TOL [LB Series] Natural Alcohol Series

Product Name	Main Component or Composition Structural Formula	State	Cloud Point °C	HLB	Characteristic Usage	Mode of Packing
LB-220	special non-ionic active agent $\text{RO}(\text{AO})_{\text{m}}\text{H}$	transparent liquid	0	-	<ul style="list-style-type: none"> Low-temperature flowability Allows high concentration Cleaning Toiletry Various industries 	17-kg can
LB-53B			38	-		17-kg can
LB-720			52	-		17-kg can
LB-83			54	-		200-kg drum
LB-1220			75	-		18-kg can
LB-1520			77	-		18-kg can

ADEKA TOL [LA-OA Series: Natural Alcohol Series

Product Name	Main Component or Composition Structural Formula	State	Cloud Point °C	HLB	Characteristic Usage	Mode of Packing
LA-775	lauryl alcohol ethoxylate $\text{C}_{12}\text{H}_{25}\text{O}(\text{CH}_2\text{CH}_2\text{O})_{\text{n}}\text{H}$	transparent liquid	57	12.3	<ul style="list-style-type: none"> High wettability, penetrability High detergency High emulsifiability, solubilization dispersibility Cleaning Toiletry Various industries 	17-kg can
LA-875			70	12.9		190-kg drum
LA-1275		white solid	>100	15.3		17-kg can
OA-4	oleyl alcohol ethoxylate $\text{C}_{19}\text{H}_{39}\text{O}(\text{CH}_2\text{CH}_2\text{O})_{\text{n}}\text{H}$	white solid	<0	8.1		190-kg drum
						200-kg drum
						16-kg can

ADEKA TOL [TN Series]



Product Name	Main Component or Composition Structural Formula	State	Cloud Point °C	HLB	Characteristic Usage	Mode of Packing
TN-40	primary alcohol ethoxylate $\text{RO}(\text{CH}_2\text{CH}_2\text{O})_{\text{n}}\text{H}$	transparent liquid	<0	9.4	<ul style="list-style-type: none"> High detergency High wettability, penetrability High emulsifiability, solubilization Cleaning Toiletry Various industries 	16-kg can
TN-80			49	12.8		16-kg can
TN-100			75	13.8		18-kg can

ADEKA TOL [SO Series]

Product Name	Main Component or Composition Structural Formula	State	Cloud Point °C	HLB	Characteristic Usage	Mode of Packing
SO-80	secondary alcohol ethoxylate $\text{RO}(\text{CH}_2\text{CH}_2\text{O})_n\text{H}$	transparent liquid	-	8	<ul style="list-style-type: none"> • Favorable Low-temp. flowability • Wettability, penetrability • Detergency • Cleaning • Toiletry • Various industries 	16-kg can
SO-105			-	10.5		180-kg drum
SO-120			33	12		17-kg can
SO-135		white paste	57	13.5		180-kg drum
SO-145			82	14.5		180-kg drum
SO-160		white solid	>100	16		18-kg can

Alkyl Phenol Type Non-Ionic Surfactants

ADEKA TOL [NP-OPL-SP-PC Series] Non-ionic Surfactants

Product Name	Main Component or Composition Structural Formula	State	Cloud Point °C	HLB	Characteristic Usage	Mode of Packing
NP-620	nonylphenol ethoxylate $\text{C}_8\text{H}_{19}-\text{O}-\text{C}_6\text{H}_4-\text{H}$ 	liquid	-	5.7	<ul style="list-style-type: none"> High wettability, penetrability High detergency High emulsifiability, solubilization High dispersibility Cleaning Toiletry Various industries 	18-kg can 200-kg drum
NP-638			-	8.6		
NP-650			-	10		
NP-660			-	10.9		
NP-675			20	12		
NP-683			33	12.4		
NP-686			39	12.6		
NP-690			52	12.8		
NP-695			57	13		
NP-700			64	13.3		
NP-700S			-	13.3		
NP-710	white paste	white paste	70	13.7		20-kg bag
NP-720			80	14.1		
NP-760			>100	15.2		
NP-890	white flake	white flake	>100	17.1		
NP-900			>100	17.2		
NP-1000			>100	17.8		
NP-1100	octylphenol ethoxylate $\text{C}_8\text{H}_{17}-\text{O}-\text{C}_6\text{H}_4-\text{H}$ 	liquid	>100	18.2		
OPL-680			38	12.6		
SP-12			60	12.7	<ul style="list-style-type: none"> High emulsifiability, solubilization Rinse aid Cleaning Toiletry Various industries 	18-kg can
PC-6			10	11.1		
PC-8	special phenol ethoxylate	liquid	51	12.4		
PC-10			67	13.5		

アルキルテール型非イオン界面活性剤
 アデカトール (LBシリーズ) 天然アルコール系
 主成分または組成式
 特殊ノニオン活性剤
 $RO(AO)_nH$
 性状
 透明液状
 沸点℃
 0>
 38
 52
 54
 75
 77
 HLB
 -
 -
 -
 -
 -
 -
 特徴・用途
 ・低温流動性
 ・高濃度配合可
 ・洗浄
 ・トイレタリー
 ・各種工業
 荷姿
 17kg缶
 17kg缶
 17kg缶
 200kgドラム
 18kg缶
 18kg缶

アルキルテール型非イオン界面活性剤 アデカトール (LBシリーズ) 天然アルコール系

アデカトール (LBシリーズ) 天然アルコール系

製品名	主成分または組成式	性状	沸点℃	HLB	特徴・用途	荷姿
LB-220	特殊ノニオン活性剤 $RO(AO)_nH$	透明液状	0>	-	・低温流動性 ・高濃度配合可 ・洗浄 ・トイレタリー ・各種工業	17kg缶
LB-53B			38	-		17kg缶
LB-720			52	-		17kg缶
LB-83			54	-		200kgドラム
LB-1220			75	-		18kg缶
LB-1520			77	-		18kg缶

アデカトール (LA・OAシリーズ) 天然アルコール系

製品名	主成分または組成式	性状	沸点℃	HLB	特徴・用途	荷姿
LA-775	ラウリルアルコールエトキシレート $C_{12}H_{25}O(CH_2CH_2O)_nH$	透明液状	57	12.3	・湿润、浸透性大 ・洗浄性大 ・乳化・可溶性性、分散性 ・洗浄 ・トイレタリー ・各種工業	17kg缶
LA-875		白色固体	70	12.9		190kgドラム
LA-1275			>100	15.3		17kg缶 190kgドラム
OA-4	オレイルアルコールエトキシレート $C_{18}H_{35}O(CH_2CH_2O)_nH$	白色固体	<0	8.1	・洗浄 ・トイレタリー ・各種工業	200kgドラム
						16kg缶

アデカトール (TNシリーズ)

製品名	主成分または組成式	性状	沸点℃	HLB	特徴・用途	荷姿
TN-40	第1級アルコールエトキシレート $RO(CH_2CH_2O)_nH$	透明液状	<0	9.4	・洗浄力大 ・湿润、浸透性大 ・乳化性、可溶性性大 ・洗浄 ・トイレタリー ・各種工業	16kg缶
TN-80			49	12.8		16kg缶
TN-90 (experimental) TN-100			75	13.8		18kg缶

HLB	特徴・用途	荷姿
8.5	・洗浄力 ・乳化 ・洗浄 ・トイレタリー ・各種工業	180kgドラム
11.9		
13		
14		18kg缶

アデカトール (SOシリーズ)

製品名	主成分または組成 構造式	性 状	融点℃	HLB	特 徴・用 途	商 標
SO-80	第2級アルコールエトキシレート $RO(CH_2CH_2O)_nH$	透明液状	—	8	・低温流動性良好 ・湿潤・浸透性 ・洗浄力 ・洗浄 ・トイレタリー ・各種工業	16kg缶 180kgドラム
SO-105			—	10.5		17kg缶 180kgドラム
SO-120			33	12		180kgドラム 18kg缶
SO-135			57	13.5		
SO-145		白色ペースト状	82	14.5		
SO-160		白色固体	>100	16		

アルキフェノール型非イオン界面活性剤

アデカトール [NP・OPL・SP・PCシリーズ] 非イオン界面活性剤

製品名	主成分または組成 構造式	性 状	融点℃	HLB	特 徴・用 途	商 標
NP-620	ノニルフェノールエトキシレート $C_{12}H_{19}-\text{C}_6\text{H}_4-O(CH_2CH_2O)_nH$	液状	—	5.7	・湿潤、浸透性大 ・洗浄性大 ・乳化、可溶性大 ・分散性大 ・洗浄 ・トイレタリー ・各種工業	18kg缶 200kgドラム
NP-638			—	8.6		
NP-650			—	10		
NP-660			—	10.9		
NP-675			20	12		
NP-683			33	12.4		
NP-686			39	12.6		
NP-690			52	12.8		
NP-695			57	13		
NP-700			64	13.3		
NP-700S			—	13.3		
NP-710			70	13.7		
NP-720			80	14.1		
NP-760			>100	15.2		
NP-890		白色ペースト状	>100	17.1		20kg袋
NP-900		白色フレーク状	>100	17.2		
NP-1000			>100	17.8		
NP-1100			>100	18.2		
OPL-680	オクチルフェノールエトキシレート $C_{12}H_{17}-\text{C}_6\text{H}_4-O(CH_2CH_2O)_nH$	液状	38	12.6	・乳化、分散性大 ・泡切れ良好 ・洗浄 ・トイレタリー ・各種工業	200kgドラム
SP-12	特殊フェノールエトキシレート	液状	60	12.7		18kg缶
PC-5			10	11.1		
PC-6			51	12.4		
PC-10			67	13.5		